Evaluation of cervical cancer screening and risk assessment behavior in the female population by demographic factors.

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Research questions:

1. Which sociodemographic characteristics are predictive of Pap smear screening prevalence and self assessed risk of cervical cancer by women?
2. What is the demographic distribution of women who are not in compliance with the American Cancer Society and National Institutes of Health Guidelines for Pap smear screening frequency? [4]
3. Are women aware of the increased cancer risk associated with multiple sex partners?

Study Description/rationale

The purpose of this study is to access the screening, knowledge and self-assessed risk of cervical cancer in a population based sample of women who have never had cervical cancer.

Current literature on the epidemiology of cervical cancer illustrates several main risk factors: smoking, multiple sex partners, Pap smear, human papillomavirus and diet.[2] There are also a number of factors that affect screening practices negatively, namely: race, marital status, education, and income.[3] The factors that influence screening will be investigated.[5] This investigation will study whether or not women in the general population who have not been diagnosed with cervical cancer are aware of these risk factors. More specifically, are women aware of the risk unprotected sexual relations pose to the development of cancer via HPV?

In order for women in the population to assess their risk of getting cervical cancer, they must know what risks they are taking. If the population does not have a basic knowledge of cervical cancer risk factors—particularly unprotected sexual activity—then they cannot protect themselves. This study could help illuminate which populations have risk assessment knowledge gaps, which would allow an opportunity for health education to focus on populations with the greatest need.[1]

Data sets to be use: HINTS 2003

Variable list:

Spage	First, what is your age?
Spgender	Are you male or female?
dm1maina	What is your employment status?
dm2marit	What is your marital status?
dm3achil	Are there any children under 18 years of age?
dm4hispa	Are you Hispanic or Latino?
dm5race(1-5)	What is your race?(1-5)
dm6educa	Highest grade/year of school completed?
dm7cinco	Is income less than 20K?

dm7finco	Is income less than 50K?
ch1everh	Ever been told you had cancer?
ch2typeo(a-d)	What type of cancer? (1-4)
ck4reduc(a-h)	How can people reduce the chance of cancer?(1-9)*
ck5eatre(a-h)	What specific changes should people make in their eating habits to reduce their chances of getting cancer?
ck8chanc	What is your chance of getting cancer?
ck9worry	How often do you worry about getting cancer?
ck10chan(a-e)	What behavior would you change to reduce your chance of cancer? (1-6)*
ck12gett(a-e)	What tests for cancer?(1-5)
ck13lman	Does having many sexual partners increase your chance of cancer?
cv1hadpa	Ever had a Pap smear?
cv2whenp	When did you have your most recent Pap smear?
cv4papsm	Before your most recent, when was your last Pap smear?
cv5hyste	Have you had a hysterectomy?
cv6whenn	When do you expect to have your next Pap smear?

*specifically reducing sexual partners, not smoking/quitting, eat better and get a check-up.

Methods of Analysis:

Analyses will be presented in order to examine the association of women's cervical cancer knowledge, self assessed risk and screening behavior with sociodemographic variables. Techniques involved include unconditional logistic regression.

1. Which sociodemographic characteristics are predictive of Pap smear screening prevalence and self assessed risk of cervical cancer by women?

- Compare distribution of socidemographic variables [age, gender, marital status, Hispanic, race, highest level of education, income] by screening behaviors [ever had a Pap smear, last Pap smear, Pap smear before last Pap smear, hysterectomy, next Pap smear].
    - Also by screening intent [which cancer screening tests screen for cancer]
- Compare distribution of of socidemographic variables [age, gender, marital status, Hispanic, race, highest level of education, income] by cancer knowledge variables [how reduce cancer risk, what behaviors would you change to reduce cancer risk, sexual partners increase risk, which cancer screening tests screen for cancer].

2. What is the demographic distribution of women who are not in compliance with the American Cancer Society and National Institutes of Health Guidelines for Pap smear

screening frequency? [4]

- Women will be placed into two groups: compliant and non-compliant. Compliant women are those between 21 and 29 who have had a Pap smear in the last year, and women between 30 and 65 who have had a Pap smear in the last 3 years. Pap smears for women age 65 and over are not required if past Pap smears were not abnormal.

- Frequency tables of the two groups by sociodemographic variables will be constructed.

- Compare distributions of the two groups by all sociodemographic variables will also be run.

- Depending on the results of the distribution comparisons, an unconditional logistic regression model will be constructed using the significant sociodemographic variables to determine Pap smear screening frequency.

3. Are women aware of the increased cancer risk associated with multiple sex partners?

- Frequencies will be run for the variable of having several sexual partners increase cancer risk. Depending on those results a chi square test will be run for the variable by sociodemographic variables.

Targeted Journal
Journal of Cancer Causes and Control

Reference List

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4. Cancer information news summary. National Cancer Insititute; Bethesota, Maryland. Task Force Announces New Cervical Cancer Screening Guidelines. January 22, 2003. Available at: http://www.cancer.gov/newscenter/pressreleases/cervicalscreen. Retrieved on July 14, 2004.

5. Clarke, Eilleen. Does screening by “pap” smears help prevent cervical cancer? A case control study. The Lancet. July 7, 1979.